

REMARKS

Applicant appreciates the considered withdrawal of the previous claim rejections. Respectfully, the claim rejections in the current Office Action (OA) also should be withdrawn, for at least the below reasons.

Claims 1-6 and 14-19 are not obvious

Independent claim 1 includes the following text:

1. A method of reverse link power control at a mobile station comprising:
transmitting a pilot signal at a controlled transmit power from the mobile station to one or more remote transceivers;
transmitting one or more traffic channel signals from the mobile station at one or more power gains directly or indirectly relative to the transmit power of the pilot signal; and
adjusting the power gain of one or more of the traffic channel signals responsive to receiving reception quality feedback from the one or more remote transceivers for the one or more traffic channel signals.

(Emphasis added.)

The OA alleges that Damnjanovic et al. (US Pub 2003/0050084) teaches everything but the adjusting step, and asserts that Nobukiyo et al. (US Patent 6993294) provides the missing teachings in a manner that would have been obvious to combine with Damnjanovic. Although the Patent Office has similarly relied on Nobukiyo in previous rejections, the OA now explicitly acknowledges that the teachings in Nobukiyo relied upon for the rejection arguments actually describe a mobile station sending quality feedback on a reverse (uplink) channel, so that a base station can make adjustments to a downlink channel being transmitted to the mobile station.

Nobukiyo in its entirety is accurately understood as teaching the selective transmission of quality information from mobile stations on an uplink channel to base stations in an HSDPA network environment. This quality information represents the reception quality of downlink signals transmitted from the base stations to the mobile stations. (See, Abstract, Summary, and elsewhere.) According to col. 1, lines 44-51, it is not necessary in some circumstances for an HSDPA mobile station to transmit quality information on the uplink. Nobukiyo teaches that uplink

interference and (individual) mobile station power consumption can be reduced by individual mobile stations not transmitting quality information under certain operating conditions. See the Summary of Nobukiyo, which teaches that the mobile station includes means for controlling transmission of the quality information to the base station at a given interval in response to a result of comparison of a threshold value and the mobile station's reception quality.

To understand this control, the examiner is kindly referred to Figs. 21 and 22 of Nobukiyo, which teach that a base station can set a received signal quality threshold to a certain level, and then communicate that threshold to mobile stations. The mobile stations are configured not to report received signal quality for their reception of the base station's signal unless it is above the threshold value. Further, the base station can evaluate how many mobile stations report signal quality for a given threshold setting, and raise the threshold to reduce that amount. Those skilled in the art will therefore immediately appreciate that Nobukiyo recognizes the very limited value of HSDPA mobile stations reporting downlink received signal quality during conditions of low reception quality, and correspondingly teaches that mobile stations in such conditions may simply stop transmitting their received signal quality information on the uplink channel, to save mobile station power and to reduce uplink interference.

Critically, Nobukiyo's cited teachings have nothing to do with the claimed limitation of a *mobile station receiving reception quality feedback* for one or more traffic channel signals being transmitted *by the mobile station*. Further, the cited teachings in Nobukiyo have nothing to do with a mobile station *adjusting power gains* between those one or more traffic channel signals and a pilot channel signal also being transmitted from the mobile station. Thus, as a matter of law, the obviousness rejection of claims 1-6 and 14-19 fail because Nobukiyo demonstrably does not provide the teachings relied upon in the rejection arguments.

Further, the motivation argued in the OA for combining Nobukiyo with Damnjanovic is legally insufficient. For convenience, the applicant reproduces the examiner's motivation statement from p. 4 of the OA below:

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for communication control to can [sic] reduce power consumption of the mobile station using uplink quality control channel (Col. 13, line 57- Col. 14, line 35 of Nobukiyo et al.) with the forward channel to controlling [sic] its power level for transmitting one or more reverse-link channels to the base station (Abstract of Damnjanovic et al.) to reduce power consumption in the mobile station.

(Emphasis added.)

Applicant will present this statement to the Board of Appeals, and is confident that the examiner's motivation to combine argument will be rejected as legally insufficient. The statement is either impossible to understand, or it is contradicted by the references. For example, even if the Board of Appeals can parse what it means to use an uplink quality control channel with a forward channel for controlling "its" (the mobile station's?) power level for transmitting one or more reverse link channels to a base station, Applicant submits that no legally sufficient basis exists for finding any motivation to combine Nobukiyo with Damnjanovic.

On that point, remember that Nobukiyo at most teaches an HSDPA mobile station deciding in some circumstances not to transmit quality information to a base station, to thereby save power at the mobile station and reduce uplink interference. That teaching does not sensibly combine with Damnjanovic, which states in its Summary that:

The present invention relates to a method of power controlling the mobile station on the reverse link during soft handoff while the mobile station is experiencing link imbalance. The power control method of the present invention ensures that the serving sector on the forward link is able to reliably decode rate control and sector selection information transmitted from the mobile station on the reverse rate control channel. This objective is achieved by independently power controlling the reverse traffic channel (R-TCH) and the reverse rate control channel (R-RCCH). Variants of the present invention include both explicit and implicit power control for the R-RCCH.

Nobukiyo's teaching that an HSDPA mobile station may or may not transmit received signal quality information to a base station has nothing to do with Damjanovic.

Applicant submits that Nobukiyo does not combine with Damjanovic and that, even if it did, the combination does not teach the limitations of claims 1 and 14. Put simply, Nobukiyo saves mobile station power by not transmitting received signal quality information back to a base station. Not transmitting signal quality information back to a base station cannot be argued as being relevant in any sense to the limitations of claims 1 and 14, which relate to a mobile station receiving signal quality feedback for traffic signals being transmitted by the mobile station, and using that feedback to make power gain adjustments between those traffic signals and a pilot signal. Further, the stated motivation to make the argued-for combination is conclusory and unsupported by any evidence of record. The rejections of claims 1-6 and 9-14 therefore should be withdrawn.

Claims 7-12 and 20-24 are not obvious

The OA rejects claims 7-12 and 20-24 under 35 U.S.C. 103(a) as being unpatentable over Damjanovic in combination with Nobukiyo, in further view of Chaponniere, et al. (US Patent 6937584).

Claims 7-12 depend directly or indirectly from claim 1, which Applicant submits is patentable over Damjanovic, Nobukiyo, and Chaponniere, taken alone or in any combination. Claims 7-12 thus are also allowable. Moreover, these rejections are not well presented, because the teachings in Chaponniere that are relied upon in the rejection arguments seem to contradict the examiner.

For example, the OA states that "...Chaponniere et al. teaches a method of reverse link power control at a mobile station, wherein the mobile station receives reception quality feedback for a given one of the one or more traffic channel signals as good and bad reception indicators that indicate good or bad reception by one or more network base stations. (Col. 10, lines 5-18 in

respect to Col. 8, lines 5-11; Col. 9, lines 52-56; and Col. 12, lines 11-16 of Chaponniere et al.)” However, it appears that those sections in Chaponniere relate quite explicitly to the quality at which a mobile station receives forward link fundamental/supplemental channels, and to the quality feedback correspondingly sent back from the mobile station. Even abstracting away the context and purpose differences between the instant invention and Chaponniere, the cited teaches are opposite in relation to the claim language at issue.

The rejection of claims 20-24 is the same or similar, and those claims depend directly or indirectly from claim 14, which Applicant submits is allowable for the reasons given earlier herein. Applicant therefore believes that claims 20-24 stand in condition for allowance.

Claims 25-38 are not obvious

Claims 25-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damjanovic and Nobukiyo as applied to claim 1, and further in view of Chaponniere. The rebuttal arguments given for claim 1 against the argued-for combination of Damjanovic and Nobukiyo apply here, and for at least those further reasons, claims 25-38 are not obvious over the attempted combination of references.

Claims 35 and 36 are not obvious

Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damjanovic, Nobukiyo, and further in view of Chaponniere as applied to claim 34, and further in view of Parkvall (U.S. Pub. 2002/0080719). These claims depend directly or directly from independent claim 25, which is allowable over these cited references for at least the reasons given above.

Claims 39-48 are not obvious

Claims 39-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damjanovic and Nobukiyo as applied to claim 1, and further in view of Chaponniere.

Applicant objects to the examiner not recognizing the language differences between claims 1 and 39. However, claim 39 does include the limitation of adjusting the power gain of a second signal (being transmitted by a communication transceiver) responsive to reception quality feedback received by the communication transceiver for the second signal. This limitation as claimed is acknowledged as missing from Damnjanovic, and the rebuttal arguments made herein for claim 1 demonstrate that Nobukiyo and Chaponniere do not provide the missing limitation. Thus, Applicant submits that claims 39-48 are allowable.

Claims 50-52 are not obvious

Claims 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Damnjanovic, Nobukiyo, and further in view of Chaponniere as applied to claims 39 and 49, and further in view of Parkvall. These claims depend directly or indirectly from independent claim 39, which is believed to be allowable at least for the reasons given above. Thus, Applicant believes that claims 50-52 are allowable over the cited references, taken alone or in any combination.

Closing

All claim rejections depend on an incorrect explanation of Nobukiyo and on demonstrably insufficient and inaccurate statements regarding the motivation to make the various combinations of Nobukiyo and the other references. Respectfully, Applicant asks the examiner to re-evaluate Nobukiyo in view of the arguments made in this response.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.



Michael D. Murphy
Registration No.: 44,958
Telephone: (919) 854-1844
Facsimile: (919) 854-2084

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